CITY OF LODI

COUNCIL COMMUNICATION

AGENDA TITLE: Approval of Engineering Contract/Mokelumne River Bank Project

MEETING DATE: October 20, 1993

PREPARED BY: Parks and Recreation Director

RECOMMENDED ACTION: Authorize City Manager to execute an engineering contract for the Mokelumne River project.

BACKGROUND INFORMATION: Our grant proposal for improvements to the Mokelumne River bank is currently being processed. However, the grant will not be funded until December 1, 1993 at the earliest. It will then be necessary to do the necessary engineering work and gain the necessary permits. Our consultant has contacted Lampe Engineering and Eco Plan Landscape architects. These firms have reviewed the project site and given us a time line for completion of work. In order to complete this project, it will be necessary to begin as soon as the grant is received to do the necessary engineering work. It will be noted that we are past the previous projected time line. This is due to the State of California funding cycle.

This work will be funded by the State. All that is needed from Council is authorization to proceed with the work. (Please see attached).

FUNDING: This will be funded from Wildlife Conservation Fund grant monies. We will act on this contract once state funding is received.

Ron Williamson
Parks and Recreation Director

Prepared by Scott Essin, Parks Superintendent

APPROVED: Thos. A. Peterson
THOMAS A. PETERSON
City Manager

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PROJECT PROPOSAL
PIG'S LAKE
LEVEE REPAIR

Background

The existing levee protecting Pig's Lake from the Mokelumne River is suffering erosion primarily from wave action as wind induced waves at the high water level and wakes from boaters are undermining levee banks causing loss of vegetation, soil, and eventually, the loss of the levee itself along with the Park Improvements and Natural Area. The most critical section of the existing levee is a short section directly to the east of the Nature Area where easterly winds and a bend in the river channel direct waves to the levee face.

This proposal would provide for levee restoration and re-vegetation utilizing Bio-technical methods of construction similar to erosion control projects along Bucks Creek, Wolf Creek, Willow Creek, and Greenhorn Creek in Plumas County in the aftermath of the 1986 flooding experienced in this region.

Proposal

Phase I - Conceptual Design Lampe Engineering and Eco/Plan would produce a conceptual plan and project sketches of the design concepts, project feasibility, and preliminary cost estimates for the levee re-habilitation. This preliminary work would be submitted to the Parks and Recreation District for review and approval.

Phase II - Engineering Lampe Engineering and Eco/Plan would work with regulatory agencies such as the California Department of Fish and Game, Regional Water Quality Control Board, U.S. Army Corps of Engineers, and Woodridge I.D. to obtain the necessary permits for the project, and prepare NEPA documents in the form of a Categorical Exclusion for the project construction.

Lampe Engineering and Eco/Plan would provide for construction drawings, specifications, and construction control for the levee repair utilizing all natural materials such as logs, stumps, large rock or boulders, and native species re-vegetation. This proposal would be for the short, critical section of levee of immediate concern illustrated above. This methodology and "design standard" could then be utilized by the agency for future repair or restoration as the need arises in the future.

This proposal would re-habilitate approximately 100 feet of levee from the low water elevation to an elevation sufficient to protect the slope from wave action and stream velocity. The area would be excavated to allow for the material to be "keyed" or anchored into solid embankment. The material would be placed in layers or stages and backfilled to replace eroded material and compacted with each successive layer tied to the previous one until the desired elevation is reached. The area would then be seeded, planted, and sprigged with appropriate native plants and trees to complete the structure. This proposal would also provide for a permeable zone which would allow water to pass through the levee and equalize the water elevations between the River and Pig's Lake.

This approach to erosion control is a very effective and cost efficient method which will provide the most natural setting possible for levee protection as well as creating wildlife habitat and provide for other recreational opportunities such as nature or interpretive trails. This concept is unconventional, and has the advantage of lending itself to force account or volunteer construction methods, thus producing a sound and visual pleasing structure at low costs.

This project would be completed and delivered to the Superintendent, Lodi Department of Parks and Recreation, for a cost not to exceed $ 9865

Proposed Time Frames

August 1, 1993	Award Phase I of Professional Service Contract.
August 13, 1993	Complete Phase I and present to the City of Lodi, Parks and Recreation Department.
August 15-20, 1993	Review of conceptual design by the Parks and Recreation Department. Decision on Go or No Go to Phase II.
August 25, 1993	Award of Phase II of Professional Services Contract.
September 15, 1993	Completion of construction drawings, project specifications, and engineers cost estimate.
October 1, 1993	Permits obtained, Categorical Exclusion complete, project advertised for construction, or Force Account construction begins.
October 20, 1993	Project completed.

Cost breakdown for Professional Services

Phase I - Conceptual Design

Provide conceptual design with sketches, feasibility, overview, and preliminary cost estimate for the project.

Project Engineer	8 hrs @ $75	$ 600
Landscape Architect/Arborist	2 hrs @ $75	$ 150
Technician	8 hrs @ $35	$ 280
Travel: 1 day @ $300 for design team		$ 300
		$ 1330

Phase II - Engineering

1. Obtain necessary permits from regulatory agencies for stream alterations, levee construction, borrow sources, and fill operations. Prepare necessary NEPA documents and a Categorical Exclusion for the project.

Landscape Architect/Arborist	2 hrs @ $75	$ 150
Project Engineer	8 hrs @ $75	$ 600
Clerical	4 hrs @ $25	$ 100
Travel: 2 person/days @ $100		$ 200
		$ 1050

2. Provide construction drawings and technical specifications for levee repair along with engineers cost estimate for the project. "Boiler Plate" specifications would be provided by the agency, and incorporated into the construction documents for contract action by the agency.

Project Engineer	24 hrs @ $75	$ 1800
Landscape Architect/Arborist	3 hrs @ $75	$ 225
Technician	16 hrs @ $35	$ 560
Drafting	20 hrs @ $25	$ 500
Clerical	12 hrs @ $25	$ 300
Travel: 2 person/days @ $100		$ 200
		$ 3585

3. Provide for construction consultation and project review during construction. Act as the Agencies "designated representative" during project construction.

Project Engineer	24 hrs @ $75	$ 1800
Landscape Architect/Arborist	8 hrs @ $75	$ 600
Travel: 3 days for Project Engineer @100		$ 300
1 day for Landscape Architect @ $100		$ 100
		$ 2800

4. Miscellaneous Costs:

Blueprinting/Reproduction	$ 100
Permits	$ 200
Mileage 1200 Miles @ $.25	$ 300
	$ 600

Total Cost for Services: $ 9365